

What Is Claimed Is:

- 1           1. A split gate flash memory, comprising:
  - 2           a substrate with a trench therein;
  - 3           a drain in the bottom of the trench;
  - 4           a source in the substrate outside the trench;
  - 5           a striped floating gate disposed at a sidewall of the
  - 6           trench, wherein one side of the striped floating gate is near
  - 7           the bottom of the trench, and the other side of the striped
  - 8           floating gate protrudes above the substrate;
  - 9           a control gate winding along the floating gate, wherein
  - 10          one side of the control gate is near the bottom of the trench,
  - 11          and the other side of the control gate is outside the trench;
  - 12          and
  - 13          a metal bit line connected to the drain.
- 1           2. The split gate flash memory as claimed in claim 1, further
- 2           comprising an oxide layer surrounding the striped floating gate,
- 3           the control gate and the substrate.